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ABSTRACT

Designed for teachers interested in therapeutic recreation, the document lists sources of adaptive recreational equipment and their homemade counterparts. Brief descriptions for ordering or constructing recreational equipment for the visually impaired, poorly coordinated, physically impaired, and mentally retarded are given. Specific adaptations include adjustable batting tees, flying foam discs, audible foam balls, no-handle paddles, wheelchair equipment fasteners, various flotation devices, adapted bicycling equipment, and other mobility aids. For each item, an address for ordering, item description, and approximate cost is provided. The document concludes with a short bibliography of special-equipment catalogs. (LH)

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PAM REPEATER

NO. 15

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ASSISTANCE CENTRE

ADAPTIVE RECREATIONAL EQUIPMENT

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Mary Lou Schilling, our Guest Editor, is an instructor in Therapeutic Recreation and Park Administration at Central Michigan University, Mount Pleasant, Michigan. She is very gracious to share her expertise with us.

EC 165 165

AIDS FOR BALL ACTIVITIES:

ADJUSTABLE BATTING TEE: (Flaghouse Inc., 18 West 18th Street, New York, N. Y., 10011) a batting tee that can be raised or lowered from 27" to 43" to accommodate a wide range of ages and heights of participants. This allows visually impaired and individuals with poor coordination to participate in softball or baseball games; as it eliminates pitching.
Approximate cost: $6.75

BATTING TEE (Flaghouse, Inc.)

HOMEMADE ALTERNATIVE: PURCHASE A WIFFLEBALL BAT, CUT OUT THE TOP END OF THE BAT AND INSERT INTO A TRAFFIC CONE. ANOTHER ALTERNATIVE WOULD BE TO CUT A PIECE OF LARGE HOSE AND INSERT THIS INTO THE TOP OF A TRAFFIC CONE. A THIRD ALTERNATIVE WOULD BE TO CUT A PIECE OF 3/4 INCH PLYWOOD INTO A TWO FOOT SQUARE; ANCHOR A TWO TO THREE FOOT POLE OR DOWL (1½" to 2" in diameter) INTO THE BASE WITH NAILS OR SCREWS. ATTACH A PIECE OF HOSE, WITH ADJUSTABLE CLAMPS SO THAT HOSE MAY BE RAISED OR LOWERED AS NEEDED.

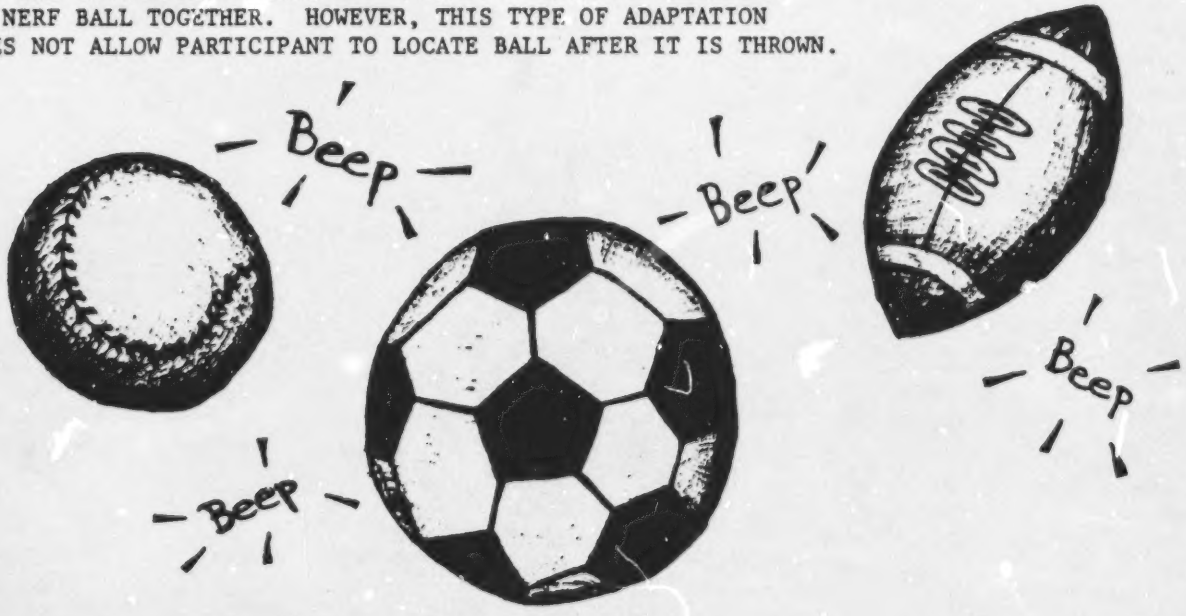
FLYING FOAM DISC: (Things From Bell, Inc., 4 Lincoln Ave., P.O. Box 706, Cortland, N.Y., 13045) a foam disc that soars through the air like a frizbee but without the chance of injury. Approximate cost: $19.95/doz.

HOMEMADE ALTERNATIVE: CUT A 1" to 2" THICK PIECE OF FOAM APPROXIMATELY 9" IN DIAMETER.

AUDIBLE FOAM FOOTBALL, SOFTBALL, SOCCER BALL:
(Flaghouse Inc., 18 West 18th St., New York, N.Y. 10011)

Foam balls with battery powered sound source inside to assist visually impaired in locating them by only auditory cues. Approximate cost: $25.75 each.

HOMEMADE ALTERNATIVE: CUT THE NERF BALL IN TWO. HOLLOW OUT THE CENTER AND INSERT 1 - 4 BELLS. GLUE TWO HALVES OF NERF BALL TOGETHER. HOWEVER, THIS TYPE OF ADAPTATION DOES NOT ALLOW PARTICIPANT TO LOCATE BALL AFTER IT IS THROWN.



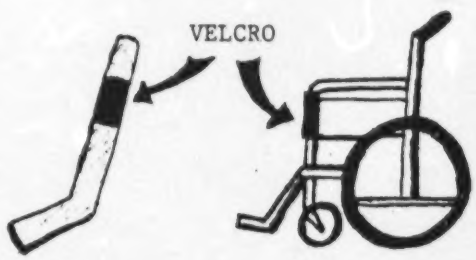
AIDS FOR PADDLE, RAQUET OR STICK GAMES:

NO HANDLE PADDLE: (The "Popping" paddle, Flaghouse Inc., 18 West 18th St., New York, N.Y., 10011) A no handle paddle made of sturdy plywood with 2 strong elastic hand-hold straps on the back to fit most hands. The paddle is orange lacquered and can be ordered in two different sizes. Good for persons who have difficulty grasping regular paddles or those who have poor eye-hand coordination. Good to assist in teaching games of table tennis, badminton, tennis, etc.
Approximate cost: $45.00 for set of 12.

THE "POPPING" PADDLE
(Flaghouse Inc.)

HOMEMADE ALTERNATIVE: SIMPLY MEASURE THE APPROXIMATE LENGTH AND WIDTH OF PARTICIPANT'S HAND, ADD TWO INCHES TO THESE DIMENSIONS AND CUT FORM ACCORDINGLY. THEN STAPLE (STAPLE GUN NEEDED) ELASTIC TO THE BACK OF BOARD FOR FINGER AND PALM SUPPORT SLOTS. (DESIGNED BY: JOYCE MECOLI, STUDENT, THERAPEUTIC RECREATION AND PHYSICAL EDUCATION, CENTRAL MICHIGAN UNIVERSITY, MT. PLEASANT, MI.)

WHEELCHAIR EQUIPMENT FASTENERS: IS HEAVY DUTY VELCRO ATTACHED TO THE FRONT OF THE WHEELCHAIR ARMREST AND THE MIDDLE OF A STICK, PADDLE OR RACQUET. THIS ALLOWS THE PARTICIPANT TO ATTACH HIS STICK VERTICALLY TO THE CHAIR ALLOWING FREE MOVEMENT WHILE STILL HAVING THE STICK READILY AVAILABLE DURING PLAY. ESPECIALLY GOOD WHILE PLAYING HOCKEY. (DESIGNED BY: CLARE COUGHLIN, STUDENT, SPECIAL EDUCATION, CENTRAL MICHIGAN UNIVERSITY, MT. PLEASANT, MI)



WHEELCHAIR EQUIPMENT FASTENERS

ARM FLOATS: (Flaghouse Inc., 18 West 18th St., New York, N.Y., 10011) are inflatable cuffs worn around each arm above the elbow to keep the nonswimmer afloat.
Approximate cost: $3.95/pair.

HOMEMADE ALTERNATIVE: USE EMPTY PLASTIC GALLON MILK BOTTLES (CAPPED) AND ATTACH A THIN STRIP OF FOAM OR MATERIAL TO IT'S HANDLE. THEN SECURE A SMALL PIECE OF VELCRO TO THIS FOAM OR MATERIAL STRIP. THE STRIP IS THEN USED TO SECURE PLASTIC BOTTLES TO UPPER ARMS OF THE PARTICIPANT. (DESIGNED BY: SUE CLARK, STUDENT, THERAPEUTIC RECREATION, CENTRAL MICHIGAN UNIVERSITY, MT. PLEASANT, MI.)

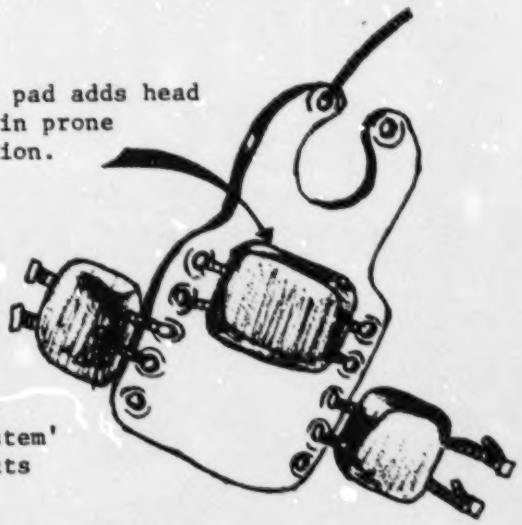
WATER DONUT: (Flaghouse Inc., 18 West 18th St., New York, N.Y., 10011) A super-sized (44 inch diameter) water dount with rope handle grips around the perimeter. Ideal for the physically impaired individual who is unable to swim; it allows participant to be involved in all types of water sports, games and relays.
Approximate cost: $28.00 each.

HOMEMADE ALTERNATIVE: INQUIRE AT YOUR LOCAL TIRE COMPANY, TIRE DEALER, JUNK YARD, ETC. TO SEE IF THEY HAVE ANY OLD INNER TUBES (FROM A TRACTOR TIRE OR OTHER LARGE TIRE) BLOW THIS UP AND YOU'RE IN BUSINESS!! YOU MAY WISH TO BEND AND TAPE DOWN THE PROJECTING VALVE TO AVOID INJURY AND COULD EVEN SECURE A ROPE TO THE OUTER SIDE OF THE TUBE FOR SUPPORT.

FLOATATION DEVICE FOR THE QUAD: (Quad Float System, Danmar Products Inc., 2390 Winewood Ave., Ann Arbor, MI. 48103) A floatation device for the person with minimal arm and leg motion. This system allows for both prone and supine positioning and compensates for lateral rotation due to uneven muscle development. This device is made of highly durable vinyl coated foam.
Approximate cost: Small = $38.90, Large = $47.90.

HOMEMADE ALTERNATIVE: NO ALTERNATIVE IS KNOWN TO BE AS SAFE AND SECURE AS THE ABOVE PRODUCT. HOWEVER, MANY PROGRAMS WILL SECURE (WITH ROPE) TWO (OR MORE) INNERTUBES TOGETHER SO THAT THEY ARE ABLE TO LAY THE MORE PHYSICALLY INVOLVED PARTICIPANT ACROSS THE TUBES. THIS WILL ALLOW THE PARTICIPANT TO BECOME INVOLVED IN THE AQUATIC EXPERIENCE. HOWEVER, THIS IS NOT AS SAFE, SECURE, DURABLE OR AS MOBILE AS THE ABOVE IDENTIFIED PRODUCT.

Chest pad adds head lift in prone position.



'Quad Float System'
Danmar Products

FLOAT SUIT: (Flaghouse Inc., 18 West 18th St., New York, N.Y., 10011) A swimming suit that contains sewn in closed cell foam that provides mid-body floatation so that the beginning swimmer floats with confidence. This suit is made to be worn over a regular swim suit.
Sizes available from children to adults and made for both sexes. Approximate cost: $25.75 - $32.75 each (dependent upon the quantity and size ordered)

HOMEMADE ALTERNATIVE: USING 1½" - 2" THICK FOAM PIECES CUT IN THE DIMENSIONS NEEDED TO FIT INSIDE A CHILD'S/ ADULT'S SUMMER SHORTS. YOU MAY EITHER CUT 2 LONG PIECES TO SECURE ACROSS THE FRONT AND BACK OF THE SHORTS; OR 4 SHORTER PIECES TO SECURE TO THE FRONT, BACK, AND SIDES OF THE SHORTS. BEFORE SECURING FOAM TO THE INSIDE OF THE SHORTS COVER WITH A NYLON FABRIC, SIMILAR TO THAT USED WITH SWIM SUITS. NOW, SEW COVERED FOAM SECTIONS TO THE INSIDE OF THE SHORTS. THIS SHOULD THEN BE WORN OVER THE TOP OF A REGULAR SWIM SUIT. (DESIGNED BY: MS. SUSAN SCHULZ RADEY, WATER SAFETY INSTRUCTOR, GRADUATE ASSISTANT, DEPT. OF RECREATION AND PARK ADMINISTRATION, CENTRAL MICHIGAN UNIVERSITY)

GETTING FROM THE POOL TO DRESSING AREA: A DEVICE PREVIOUSLY KNOWN AS A 'BATH TROLLEY' CAN BE MADE TO ASSIST THE BILATERAL LEG AMPUTEE TO MOVE INDEPENDENTLY AROUND THE POOL AREA. TO MAKE THIS DEVICE YOU COULD ADAPT A GYM SCOOTER BY ADDING HIGH QUALITY CASTERS AND/OR AN OPTIONAL BACKREST. YOU COULD MAKE A GYM SCOOTER BY CUTTING A PIECE OF 12" x 12" x 3/4" PLYWOOD. SAND WOOD AND MOUNT HIGH QUALITY CASTERS TO THE CORNERS. PAINT WITH MARINE PAINT OR VARNISH. ANOTHER ALTERNATIVE WOULD BE TO ADAPT A PLASTIC KITCHEN CHAIR. CUT OFF/REMOVE THE LEGS, ADD CASTERS, CUT DOWN THE BACK OF CHAIR TO DESIRED HEIGHT, AND CUT THIN SLOTS INTO THE SEAT FOR WATER DRAINAGE.

BICYCLING EQUIPMENT

CYCLING WITH THE VISUALLY IMPAIRED: A DEVICE PREVIOUSLY KNOWN AS A 'BUDDY BAR' IS AN ATTACHMENT THAT JOINS TWO REGULAR BICYCLES SIDE-BY-SIDE APPROXIMATELY ONE YARD APART. THIS ALLOWS THE VISUALLY IMPAIRED MENTALLY RETARDED, OR PHYSICALLY IMPAIRED TO RIDE BESIDE A NONHANDICAPPED PARTNER. THIS COULD BE MADE BY JOINING A PIECE OF METAL TUBING SECURELY TO THE FRAME OF EACH BICYCLE BELOW THE HANDLEBARS (EITHER VIA CLAMPING OR WELDING). HOWEVER, TANDOM BICYCLES WILL PERMIT HANDICAPPERS TO RIDE SAFELY WITH THE ABLEBODIED AND ARE MORE HIGHLY RECOMMENDED THAN THE HOMEMADE APPARATUS.

THROW-DOWN ROADWAY: (Flaghouse Inc., 18 West 18th St., New York, N.Y., 10011) Used to teach participants proper bicycle safety skills using this rearrangeable course. Made of heavy duty washable vinyl patterns that grip to the floor. Set includes plastic ramp, bumpty-bump, ziggety zak and park it pieces.
Approximate cost: $164.85

THROW-DOWN ROADWAY
(Flaghouse Inc.)

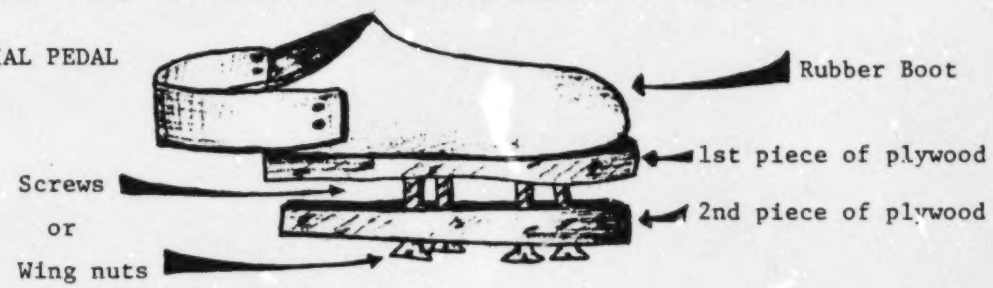
HOMEMADE ALTERNATIVE: BRIGHT COLORED CONTACT PAPER OR HEAVY DUTY COLORED TAPE COULD BE USED TO MAKE YOUR ROADWAY. SMALL RAMPS CAN BE MADE FROM PLYWOOD AND PARKING SPOTS CAN BE IDENTIFIED WITH 2 x 4's.

SPECIAL PEDALS: (Flaghouse Inc., 18 West 18th St., New York, N.Y., 10011) Wooden blocks that shorten the distance to the pedal and leather straps secure the feet in place. These will bolt onto any tricycle pedal. Available for both children and adults. Approximate cost: $23.00/pair.

Special Pedal
(Flaghouse Inc.)

HOMEMADE ALTERNATIVE: OBTAIN A PAIR OF GALOSHES (RUBBER BOOTS). CUT THE BOOT IN HALF, USING ONLY THE FRONT SECTION. CUT TWO ½" PIECES OF PLYWOOD TO FIT THE SOLE OF THE FRONT SECTION OF THE BOOT. DRILL FOUR CORNER HOLES INTO THE BOOT AND THE TWO PIECES OF PLYWOOD. SECURE (GLUE, STAPLE OR TACK) ONE PIECE OF PLYWOOD TO THE BOOT, ALIGNING THE HOLES AND COVER SOLE OF BOOT WITH THICK MATERIAL OR A SHOE/BOOT INSOLE (OPTIONAL). SECURE (SEW OR STAPLE) A 1" THICK ELASTIC STRAP TO THE BACK OF THE BOOT. PLACE ENTIRE BOOT OVER REGULAR BICYCLE PEDDLE, SECURE TO PEDDLE WITH THE SECOND PIECE OF PLYWOOD USING WASHERS AND WING NUTS. (DESIGNED BY: MS. ANGELA YRIBAR, STUDENT, THERAPEUTIC RECREATION, CENTRAL MICHIGAN UNIVERSITY, MT. PLEASANT, MI.)

HOMEMADE SPECIAL PEDAL



TRICYCLE BODY SUPPORT: ('Body/Torso Support' Play Learn, Division of P.C.A. Industries Inc., 2298 Grissom Dr., St. Louis, Missouri, 63141) A support bar that attaches to a tricycle frame, enabling children with poor balance to enjoy cycling activities. It is adjustable to the height and girth of the child. Attaches only to Play Learn trikes or Irish Mails. Approximate cost: $43.00.

HOMEMADE ALTERNATIVE: AN ALUMINUM FRAME AND CANVAS BACKING (SIMILAR TO A WHEELCHAIR BACK) COULD BE WELDED TO THE TRICYCLE. SECURE CHILD TO TRIKE WITH VELCRO STRAP.

Body/Torso Support

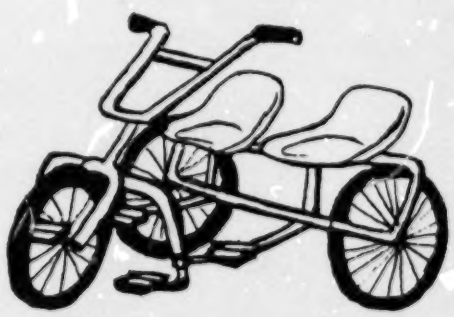
WHEEL MOBILE: ('Rifton Wheelmobile', Rifton Equipment for the Handicapped, Rifton, New York, 12471) This device is similar to a long scooter board or mobile mat, but it has two side wheels enabling the non-ambulatory child to independently propel self in active play. It tips forward for self-mounting. Provides back support and can either be self-propelled or pushed wheelchair fashion on the high back handle. Approximate cost: $78.50.

HOMEMADE ALTERNATIVE: CUT A PIECE OF PLYWOOD APPROXIMATELY 30" x 13". PURCHASE TWO SMALL TRICYCLE WHEELS AND AXLE, SECURE THESE WITH METAL CLAMPS TO THE MIDDLE (APPROXIMATELY) OF THE PIECE OF PLYWOOD, SECURE A HEAVY DUTY SWIVEL CASTOR TO THE REAR OF THE PLATFORM. IF YOU LIKE YOU COULD SECURE A SECOND PIECE OF PLYWOOD TO THE BACK FOR BACK SUPPORT. (DESIGNED BY: JAN HOWELL, EXECUTIVE SECRETARY, CENTER FOR LEISURE SERVICES, CENTRAL MICHIGAN UNIVERSITY, MT. PLEASANT, MI.)

BIKES AND TRIKES WITH WHICH NO FEASIBLE HOMEMADE ALTERNATIVE IS KNOWN

SIDE BY SIDE TRICYCLE: (Hammatt & Sons, Inc., 1721 South 2nd St., Mount Vernon, WA., 98273 - 5299) A large tricycle which allows two people to sit (in moulded bucket seats with back support) side by side and ride! Allows visually impaired, mentally retarded and physically handicapped to ride with able bodied. Each person has separate pedals, brakes and steering.
Approximate cost: $485.00.

ADULT TRIKE AND ADULT 4-WHEELER: (Flaghouse Inc., 18 West 18th St., New York, N.Y., 10011) Adult 3 wheeler or 4 wheeler bikes provide additional stability and support for those with poor balance and coordination. Especially good for those with Cerebral Palsy.
Approximate cost: trike = $265.00,
4 wheeler = $372.00.



SIDE BY SIDE BICYCLE

TRIKE
(Flaghouse Inc.)

4 - Wheeler
(Flaghouse Inc.)

HAND DRIVEN TRICYCLE: (Flaghouse Inc., 18 West 18th St., New York, N.Y., 10011) A tricycle designed for 2 - 7 year olds that is powered and steered with the hands. Especially good for those with spinal cord injuries, bilateral lower amputees, paralysis or limited control/use of lower extremities.
Approximate cost: $384.75.

Hand Driven Tricycle
(Flaghouse Inc.)

SPECIAL SEAT: (The 'Bummer Seat', H.M.C. Products Inc., 56849 Grand Rapids Ave., New Hudson, MI. 48165) A long yet narrow and lightweight seat on a chrome frame. It attaches to any bicycle for extra comfort and support.
Approximate cost: $24.95.

Bummer Seat
(H.M.C. Products Inc.)

REFERENCES:

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1982 Wholesale Catalogue of Motor Education Equipment for Special Populations, Flaghouse, Inc., 18 West 18th Street, New York, N.Y., 10011

1982-83 Wholesale Catalogue; Physical Education, Recreation, Marine and Camping Supplies, Flaghouse, Inc., 18 West 18th Street, New York, N.Y., 10011

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Special Products for Special People (1982 Catalog) Danmar Products, Inc., 2390 Wirewood, Ann Arbor, MI, 48103

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Rifton Equipment for the Handicapped, 1982 Catalog, Rifton Equipment for the Handicapped, Rifton, New York, 12471